

Appln. No. 10/062,700  
Amdt Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims

Claim 1. (original) A method to determine a configuration of at least a portion of a network, the method comprising:

- receiving status information relating to nodes in the portion of the network;
- determining, for the nodes, respective labels that indicate one or more virtual connections traversing the nodes based on the status information;
- identifying at least one link between a subset of the nodes based on the respective labels; and
- determining the configuration of the portion of the network based on the at least one link.

Claim 2. (original) The method of claim 1, wherein receiving status information comprises:

- receiving management information base parameters from the nodes.

Appl. No. 10/062,700  
Amendment Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

Claim 3. (original) The method of claim 2, wherein receiving the management information base parameters comprises receiving a virtual path identifier for each of the one or more virtual connections.

Claim 4. (original) The method of claim 2, wherein receiving the management information base parameters comprises receiving virtual channel identifier information for each of the one or more virtual connections.

Claim 5. (original) The method of claim 1, wherein determining respective labels that indicate one or more virtual connections traversing the nodes comprises determining one or more identifiers for each of the one or more virtual connections.

Claim 6. (original) The method of claim 5, wherein determining at least one link between the subset of the nodes comprises determining the subset of nodes having the same one or more identifiers.

Claim 7. (original) The method of claim 5, wherein determining one or more identifiers comprises determining a virtual path identifier for each of the one or more virtual connections.

Appl. No. 10/062,700  
Amdt Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

Claim 8. (original) The method of claim 7, wherein determining one or more identifiers comprises determining a virtual channel identifier for each of the one or more virtual connections.

Claim 9. (original) The method of claim 1, wherein determining respective labels that indicate one or more virtual connections traversing the nodes comprises:  
determining a number of the virtual connections traversing the nodes; and  
determining respective cardinalities of the nodes based on the number of the virtual connections.

Claim 10. (original) The method of claim 9, wherein determining at least one link between the subset of the nodes comprises determining the subset of nodes having the same cardinality.

Claim 11. (original) The method of claim 10, further comprising receiving additional status information when the subset of nodes exceeds a threshold number of nodes.

Claim 12. (original) The method of claim 11, wherein the threshold number of nodes is 2.

Claim 13. (original) An apparatus, comprising:

Appl. No. 10/062,700  
Amdt Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

means for receiving status information relating to nodes in at least a portion of a network;

means for determining respective labels for the nodes that indicate one or more virtual connections traversing the nodes based on the status information;

means for identifying at least one link between a subset of the nodes based on the respective labels; and

means for determining a configuration of the portion of the network based on the at least one link.

Claim 14. (original) The apparatus of claim 13, wherein the means for receiving status information comprises:

means for receiving management information base parameters relating to the plurality of nodes.

Claim 15. (original) The apparatus of claim 14, wherein the means for receiving the management information base parameters comprises means for receiving virtual path identifier for each of the one or more virtual connections.

Claim 16. (original) The apparatus of claim 14, wherein the means for receiving the management information base parameters comprises means for receiving virtual channel identifier information for each of the one or more virtual connections.

Appl. No. 10/062,700  
Amdt Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

Claim 17. (original) The apparatus of claim 13, wherein the means for determining respective labels that indicate one or more virtual connections traversing the nodes comprises means for determining one or more identifiers for each of the one or more virtual connections.

Claim 18. (original) The apparatus of claim 17, wherein the means for determining at least one link between the subset of the nodes comprises means for determining the subset of nodes having the same one or more identifiers.

Claim 19. (original) The apparatus of claim 17, wherein the means for determining one or more identifiers comprises means for determining a virtual path identifier for each of the one or more virtual connections.

Claim 20. (original) The apparatus of claim 17, wherein the means for determining one or more identifiers comprises means for determining a virtual channel identifier for each of the one or more virtual connections.

Claim 21. (original) The apparatus of claim 13, wherein the means for determining respective labels that indicate one or more virtual connections traversing the nodes comprises:

means for determining a number of the virtual connections traversing the nodes; and

Appl. No. 10/062,700  
Amdt Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

means for determining respective cardinalities of the nodes based on the number of the virtual connections.

Claim 22. (original) The apparatus of claim 21, wherein the means for determining at least one link between the subset of the nodes comprises means for determining the subset of nodes having the same cardinality

Claim 23. (original) The apparatus of claim 22, further comprising means for receiving additional status information when the subset of nodes exceeds a threshold number of nodes.

Claim 24. (original) The apparatus of claim 23, wherein the threshold number of nodes is 2.

Claim 25. (original) A method for determining a configuration of a node in a network, the method comprising:

receiving status information relating to the node and at least one additional node in the network;

determining respective labels that indicate one or more virtual connections traversing the node based on the status information;

identifying at least one link between the node and the at least one additional node based on the respective labels; and

determining a configuration of the node based on the at least one link.

Appl. No. 10/062,700  
Amdt Dated: May 2, 2005  
Reply to Office Action of March 1, 2005

App 1403

Claim 26. (original) An apparatus, comprising:

means for receiving status information relating to a node in a network and  
at least one additional node in the network;

means for determining respective labels that indicate one or more virtual  
connections traversing the node based on the status information;

means for identifying at least one link between the node and the at least  
one additional node based on the respective labels; and

means for determining a configuration of the node based on the at least  
one link.